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## CRITICISMS AND DISCUSSIONS.

### AUTOMATISM, DETERMINISM, AND FREEDOM.

Mr. Arthur Harington's courteous criticism of my discussion of automatism shows that I have failed to make my position clear. Regarding, apparently, the term "automatism" as synonymous with "determinism" in the sphere of animal life, and disregarding the fact that I was contending for a more restricted usage, he endeavors to place me on the horns of a dilemma. "Either then," he says, "Prof. Lloyd Morgan must give up his present belief that 'the organism yields to the strongest prompting' or his conclusion that actions, whether of animals or men, cease to be automatic, that is, mechanical and 'determined,' when they are the result of 'conscious selection and choice'." But since for me "automatic" is *not* coterminous with "determined" I am not prepared to plead guilty to the charge of inconsistency implied in the sentence just quoted.

Let me try to make my exact position as clear and free from all ambiguity as a very condensed statement allows.

Many organic activities are such that, quite apart from any experience, a given stimulus, or group of stimuli, gives rise to a more or less definite and stereotyped response. Such response is automatic in the sense in which I use the term. But there are other activities which, though none the less determinate, are not automatic. Intelligent behavior, based upon the data afforded by previous experience, is not automatic. In such intelligent behavior cerebral centres or their equivalents (let us call them control-centres) are called into play by which response is either augmented or inhibited. But in contending that behavior in so far as it is modified by the functional activities of these control-centres ceases to be automatic, I am far from contending that it ceases to be determinate. The action of the control-centres I believe to be neither more nor less determinate than the action of the automatic centres. Their activity is the determinate outcome of the physiological impulses by which they are called into play. In this sense, as Dr. Waller contends in the passage which Mr. Harington quotes, their activity may be said to be of the same fundamental nature as reflex action. I do indeed question the wisdom of applying the term "reflex action" to voluntary and intelligent behavior—but that is another matter. In any case I should say that the action of the control centres though determinate is not automatic.

Now, if determinism and automatism as applied to animal activities, are synonymous, the latter term is redundant and may be abandoned. But it is more than redundant; it is confusing. To say that a man who receives a letter offering him a certain position, and who, after careful consideration telegraphs his acceptance—

to say that such a man acts automatically does not appear to be a satisfactory use of the term, when we already have "determinate" to express the belief that in his decision he yields to the strongest motive.

My suggested terminology (omitting the secondary automatism of habit) may now be summed up in the following scheme :

Reflex action.	Instinctive activity.	Intelligent behavior.	Rational conduct.
Automatic		Voluntary	Volitional
Determinate.			

A word or two may be added concerning "freedom." Mr. Harington regards any reconciliation between freedom and determinism as "hollow and unreal." Here again everything depends on the meaning we attach to our terms. If "free" is antithetical to "determinate" of course no "reconciliation" is possible. In any given case we must either have freedom or determinism; we cannot have both any more than a glass can be both full and empty at the same time. But if we use—as I contend that we should use—"freedom" in antithesis to "external constraint," both have their place in a scheme of determinism. That which is intrinsically determinate is free; that which is extrinsically determinate is under external constraint. Otherwise stated, freedom is immanent; not-freedom is due to the influence of environing forces. The notion that the activities of nature are externally caused is part of the metaphysics of special creation; and the idea that determinism is synonymous with external constraint is a legacy of that metaphysics. Given an organism as a self-constrained mechanical system. If we regard this system as a whole we may say that under the influence of a stimulus or group of stimuli it responds in a certain determinate fashion. When it is not let nor hindered from effecting the response it is free; if in any way or in any degree its free response be interfered with it is not free, but under external constraint. But if we regard the higher animal as comprising (1) an automatic system and (2) a controlling system, then the automatic system, in so far as its action is augmented or inhibited by the control-centres, is under constraint. Its free action is interfered with and the controlling system, in so far as its inherent activity is interfered with by external influence, is under constraint. When it is not thus interfered with it is free to exercise its inherent power of determinate control. The man in the street who claims freedom to act as he chooses in response to the strongest prompting, puts forward a claim for his cerebral centres which in my judgment cannot be gainsaid. And if some one objects that his acts are after all determinate, he may well reply : As surely they are; but just in so far as they are determined by the intrinsic activity of some precious ounces of grey cerebral matter, their freedom is immanent in the system of my brain and its concomitant consciousness.

Again summarising in schematic form we have :

Intrinsic activity	Activity enforced by the environment
Free	Constrained
Determinate.	

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